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ABSTRACT

This literature review was designed to provide the reader with a comprehensive overview and a better understanding of the focus of recent educational needs assessment studies at all levels of education. Few needs assessment studies are similar in terms of the subject matter assessed or the techniques of data gathering. For the purposes of this paper, the multitude of needs assessment studies are grouped into five categories: (1) goals setting and long-range planning; (2) student characteristics and follow-up studies; (3) occupational needs assessment; (4) facilities design and educational innovation; and (5) curriculum evaluation and resource allocation. Conclusions indicate that much of the assessment of educational programs has been based on qualitative rather than quantitative instruments of evaluation. Evaluation is often a means of placating a funding agency rather than a vital instrument of policy determination and curriculum planning. However, community needs assessment is an inevitable process that will become an integral part in educational planning--indeed, in all areas of socioeconomic planning. An extensive bibliography is appended. (Author/DC)

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NEEDS ASSESSMENT STUDIES

FOR EDUCATION

by:

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CENTER FOR COMMUNITY NEEDS ASSESSMENT

UNIVERSITY OF FLORIDA

GAINESVILLE, FLORIDA

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INTRODUCTION

The identification of educational needs has become a focal point in community and educational conferences within recent months, and legislatures and state departments have begun to state strongly their concern for immediate efforts in needs assessment. As of 1973, forty states had passed legislation to fund various types of needs assessment projects (Hawthorne, 1973).

Indeed, it has been emphasized that the capability to perform accurate assessment is critical to the future of the effectiveness of education in the United States. Former President Nixon stated in an address to Congress..."the greatest need in the school systems of the Nation is to begin the responsible open measurement of how well the educational process is actually working." (Education Commission of the States, COMPACT, 1972).

Pressure from state legislatures for true accountability has mandated needs assessment studies. Sweigert states, "Data from a study of needs should enable a legally responsible policy-making body to establish priorities among needs, thereby finally giving direction to educational planning." (Sweigert, 1968). Furthermore, seekers of federal monies for categorical or other broad types of aid are expected to document thoroughly the basis of their request.

In an attempt to meet the great demand for comprehensive needs assessment programs in education, a survey of

the most recent literature shows that many and varied studies have been documented (Educational Testing Service, 1973; Wormer, 1973; Marinelli, 1972b; Hawthorne, 1972). These range in scope from national and statewide surveys to studies encompassing data only for a single institution or school district. Of all the assesssed subject matter, the data gathering techniques, and needs assessment models proposed, few are similar. For the purpose of this paper, the multitude of needs assessment studies will be grouped into five categories; 1) goals setting and long-range planning, 2) student characteristics and follow-up studies, 3) occupational needs assessment, 4) facilities design and educational innovation, and 5) curriculum evaluation and resource allocation. It is hoped that this form of presentation will provide the reader with both a broad comprehensive overview and a better understanding of the focus of recent educational needs assessment studies.

GOALS SETTING AND LONG-RANGE PLANNING

Forty states are presently involved with some form of educational needs assessment study. The largest number of studies are in the area of goals setting. Within this category there is a great diversity in both focus and scope.

The Northern California Program Development Center in Chico, California (1972) is considering a program to measure and rank community educational needs, setting goals and objectives based entirely on the opinions of a cross-section of the community. Specific problem areas where long-range planning was focused included the development of programs and special services to the many rural isolated children in the state.

In Florida a published report defined five processes in the planning of Florida's community colleges. (Henderson, 1973). The first two of these processes relate to needs assessment: 1) assessment of the conditions and environment of the community college system, and 2) an assessment of the societal needs the college should be responsible for considering. The purpose of these statements of commitment to needs assessment was to define community colleges' goals and use them as the hub of the Master Plan for long-range college developmental planning.

The focus was somewhat different in Texas. (Barber, 1972). Rather than studying the educational needs of an entire public school system, the Texas study concerned

itself with the needs of the system vis-a-vis proposed regional education centers. The hub of the Texas model was needs assessment and a statement of assessed needs in behavioral terms. Tasks in the planning phase included stating divisional objectives of all programs, selecting activities to achieve these objectives, and developing a program evaluation plan and completing an evaluation guide. It also included implementation of recommended procedures designed to accomplish the objectives and the evaluation of these.

Walter J. Foley, as principal investigator of a Management Information System Project (MIS) under an Office of Education grant, is interested in developing a MIS covering all aspects of the educational process. (Foley, 1972). A specific area of interest in this system is titled "Missions and Goals Statement." In it, Foley is concerned with developing a system that would be responsive to the informational needs of decision makers. He recognized the need for the development and construction of a common data base and for making information gathering an on-going process.

Along similar lines Huron, South Dakota, has developed a computer simulation model called HELP, a catchy acronym for Higher Education Long-Range Planning. (Milne, 1972). The emphasis of this model is on determining philosophy and objectives, and because it is computerized, it may be easily adapted to most college planning situations. It can be used in the initial stages of college development or when an

existing institution needs to re-evaluate its goals.

Needs assessment in a Michigan study represented a part of a larger educational accountability model designed to aid the State elementary and secondary school system from goals-setting to implementation and feedback. (House, 1974). Significantly, it was the needs assessment portion which, in a 1974 evaluation of the model, was found to be wanting. It was considered by the evaluators that the goals of the assessment model were too narrow, and that testing every pupil, which was the method being used by those involved in needs assessment, amounted to "overkill." It was recommended that the matrix sampling technique of selecting students be used instead and that each of the students be tested in only a few areas. While this would not provide accurate data on individual students or schools, it would provide such data for the state as a whole. In addition, it would provide better economy in both cost and time.

The National Laboratory for Higher Education has developed a tool for the involvement of community groups in prioritizing educational goals. (Baker and Brownell, 1971). GOALS (Goal Setting for Organizational Accountability: A Leadership Strategy) emphasizes face to face communication with up to thirty participants representing community and college. Its purpose is to reach a concensus on the rank of Overall Purpose Goals, Institutional Ends Goals, and Management Support Goals.

A highly respected and widely used goal setting model

devised in conjunction with Phi Delta Kappa forces individual and community involvement in the development and prioritization of educational goals. (Commission of Educational Planning, 1972). Phase one of the package is concerned with the determining of needs and the ranking of goals. Phase two concentrates on the translation of those needs into easily workable performance objectives.

Modeled after the National Assessment for Education, Minnesota's educational assessment took a systems approach and incorporated a feature for periodic monitoring and re-evaluation of long-range goals. (Pyecha, 1973). Broad goal setting and review procedures have also been incorporated as a part of recent assessments in at least ten States. (Colorado, Maryland, Kentucky, North Carolina, Wisconsin, Arizona, North Dakota, Georgia, Arkansas, and Florida).

The prioritization of goals was emphasized in a Kentucky study(Kentucky State Department of Education, 1972), and in Maryland (Atkinson, 1972), the long-range planning and eventual achievement of the goals was stressed. Comparison with national goals became the major focus of a North Carolina study. (Dunterman, 1973).

Who sets educational goals is oftentimes a major question, and several similar statewide studies emphasized community involvement (Bruno, 1973; Atkinson, 1972) as well as involvement by students. (Kentucky, 1972: Milwaukee, 1972).

The needs assessment program in South Carolina's public

school system consisted of the appointment of task forces, the development by these task forces of a needs assessment model, the identification, after-data collection and analysis, of the State's most pressing educational needs, and finally a schematic presentation of an implementation procedure. (Trull, 1973).

Stanford Research Institute (Dell, 1973) has developed a full scale model for educational planning and the establishment of institutional goals and objectives. Their technique, termed "objective scaling procedure" (OSP), uses magnitude estimation scaling, which is a systematic assessment of one's attitudes toward institutions and cultural phenomena. Provided with a listing of objectives for a given educational institution, administrators, citizens, and planners then apply Stanford's OSP technique. Computer processing provides output, including objectives in prioritized lists.

At Brevard Community College (1973) in Florida, the newly developed Goals Inventory was field tested during 1974. This tool delineates a college's goals and establishes priorities among them. Though it does not tell colleges how to reach goals, the Goals Inventory provides a means by which individuals and constituent groups can contribute to the goal establishing process. Each respondent is asked to assign a degree of importance to each statement given, and by computer tabulation, goal/area discrepancies are highlighted. The importance of this type of information for educational planning cannot be overemphasized.

STUDENT CHARACTERISTICS AND FOLLOW-UP

Student characteristics surveys and follow-ups are becoming more important in Needs Assessment studies. Educational institutions have long been lax - short of brief biographical data and transcripts - in finding out what type of students they are to be admitting, who they presently have enrolled, and what happens to their graduates.

The University of Maryland does extensive annual research about its freshman, including such factors as family background and attitudes on current issues. (Christenson, 1973). In line with the new United States policy to encourage Native Peoples to develop their own educational destinies, large amounts of money have been allocated for studying the Indian population in Alaska's and New Mexico's schools. (Kluenfeld, 1973; Bureau of Indian Affairs, February, 1973 and June, 1973). The effectiveness of a proper education for both on-and off-reservation living is the focus of these studies.

Statewide studies of student educational needs in student characteristics surveys have been implemented in Arkansas (Watson, 1973), Washington (Consulting Services Corporation, 1970), and, outside the United States, in a comprehensive study of French children in the 16-19 year age group. (Janne, 1973).

Follow-up studies in community and four year colleges are widespread concerning entering freshman student charac-

teristics. (Azusa Pacific College, 1974; Alfred, 1973), and oftentimes the focus is the alarming attrition rate in higher education. (Wilson, 1973; Rowell, 1974; Renzulu, 1972).

Studying student needs in conjunction with surveying the characteristics of retired persons using community college facilities proved effective in California. An improved instructional climate was established by using the students themselves as educational resources. (California Community College, 1973). In consideration of specific minority and disadvantaged students, instructional methods and basic goals were successfully re-evaluated in a 13 college survey. (Humphries, 1971).

A follow-up study done in a Connecticut community college (Renzulu, 1972) questioned the effectiveness of certain courses both for content and teaching methodology, and incorporated feedback from graduates.

Graduate students were given a characteristics survey at Miami University of Ohio (Skipper, 1973) so that the school might better tailor the advanced programs to the needs of its students. Also at Miami University, married students were administered a characteristics survey. This study pointed out the need for better psychological and academic counseling, and for married student social clubs and activities.

Follow-up studies of Florida community colleges took place at Santa Fe (Santa Fe Community College, 1969, 1971),

Tallahassee Community College (1971) and Lake City Community College (1974). The research at Santa Fe focused on graduates' indigenous characteristics, college experiences, and post graduation status. This study's objective was to present components of the successful college experience in a manner providing guidance for both non-graduates and the institution. Whereas the Tallahassee Community College study focused on the amount of time required from the student's initial enrollment to graduation, the Lake City research was much broader in scope, concentrating on all graduates of Lake City over a twenty-four year period. Because it is computerized, the instrument is adaptable to any institutional situation, and has become recognized as helpful to educational decision makers in determining the proportion of students working in areas related to their studies during their college years.

In another Florida study, this time at Central Florida Community College, (1974) a student characteristics survey was designed to give the college a profile on all of its students, and separate profiles on all students who have enrolled in each program or major field of study. Questions studied included whether student characteristics were related to choices of programs, as well as whether certain segments of the population were being adequately served by the college.

OCCUPATIONAL NEEDS SURVEYS

Several statewide occupational surveys were undertaken with the rationale of establishing occupational needs of the participating states over the next several years; such studies were done, for instance, in Kansas (Kansas State Master Planning Commission, 1971) and Minnesota (Copa and Irvin, 1972). The Kansas survey projected manpower needs to 1985 and included the study of the relationship of job openings education and experience, the role of women in the work force, occupational distribution, and job preparation requirements in specific terms. The Minnesota survey offered data by occupational area regarding job openings filled and unfilled in 1973. These data should be of importance to planners of vocational and technical education, who must be concerned with manpower needs.

A study sponsored by the Connecticut State Department of Education in cooperation with Manchester Community College (Dickstein, 1972) was based on the assumption that new careers will open up in gerontology to meet the needs of a rapidly expanding population of older people. Occupational needs and educational interests of providers of personnel services to the elderly were surveyed. A companion survey was also done of the needs and interests of senior citizens living in Hartford, Connecticut.

In Florida the first of a series of publications concerning the assessment of future manpower needs in human

service occupations was issued in 1970. (Florida State Manpower Planning Council, 1970a, 1970b, 1971, 1972, 1973, 1974). A similar study was conducted in Pennsylvania to guide community college administrators in the planning and developing of short term programs in child care, fire prevention and library and teacher aids. (Kiffer, 1972). Florida also undertook a Manpower and Education for Criminal Justice assessment which provided evidence of employer demand for personnel in this field and projected manpower needs over the next ten years. (Florida State University System, 1973).

The Okaloosa-Walton Junior College (Florida) district investigated the employment characteristics and the vocational training needs of its two-county area over a period of three years. (Durham, 1972). Employers in 683 businesses were interviewed as to their present and future needs. From this survey, manpower projections to 1976 were made.

No doubt in recognition of the importance of understanding the occupational structure of the community, several manuals for conducting manpower surveys have been recently published. Two studies discuss the steps which should be taken in constructing survey instruments, the actual survey, and the process by which research personnel can evaluate the data. (Collins, 1972; Morton, 1972). Westbrook (1973) takes a different tack. The primary goal of this manual is to assist transfer between four year institutions and junior colleges.

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The U.S. Department of Labor publishes several manuals to provide national, regional and local data as well as projection techniques to allow local areas to examine local manpower conditions and make manpower projections.

The Occupational Outlook Handbook (1974) is based on Bureau of Labor research in occupational and manpower trends. The Handbook provides information on over 800 occupations and 30 major industries. In addition to projecting future job opportunities, the Handbook gives job descriptions, interest and ability requirements, educational and training requirements, and salary and working conditions.

An historical series of tables complete through 1972 is contained in the Bureau of Labor Statistics' Handbook of Labor Statistics, 1973. The data in these tables include information about the labor force, employment and unemployment, hours, compensation, prices and living conditions, and union and industrial relations. In addition, data about industrial injuries and foreign labor statistics are included. In the 1973 edition, tables 57 through 59 in the chapter on Employment give historical information about manpower development and training in federal programs.

The Department of Labor's annual report on manpower requirements, resources, utilization and training, as well as the Department of Health, Education, and Welfare's report on education and training under the Manpower Development and Training Act are included in the 1974 Manpower Report of the

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President.

The standard summary of statistics on the social, political, and economic organization of the United States has been published annually since 1878 in the Statistical Abstract of the United States. The abstract serves both as a statistical reference and as a guide to other sources.

The Manpower Administration of the U.S. Department of Labor publishes reports on research and demonstration projects in its annual edition of Manpower Research and Development Projects. Projects discussed include programs for the use and development of manpower, special target groups, manpower program planning and administration, the labor market, manpower economic and social policies.

Detailed statistics on the nonagricultural work force in the United States are presented in Employment and Earnings, 1909-72, prepared by the U.S. Department of Labor. This publication includes monthly and annual employment averages, average weekly and hourly wages, average weekly and overtime hours, job vacancies, and labor turnover rates. Included in this publication for the first time is historical information on job vacancies from 1969. Also included are seasonally adjusted data on short and long term job vacancy rates and long term job vacancies.

The Tomorrow's Manpower Needs Series is published by the Bureau of Labor Statistics in the U.S. Department of Labor to assist those "making State and area manpower projections" (Tomorrow's Manpower Needs, Vol. 1, 1969), to

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evaluate educational needs and training needs, and to assist in vocational guidance. It is assumed that consideration of national developments makes state and area projections more reliable. Because the most recent and accurate manpower data should be available for use in making projections, there have been periodic revisions and refinements of the publications and methods. (See Appendix for list of publications in Tomorrow's Manpower Needs Series).

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FACILITIES PLANNING - EDUCATIONAL INNOVATION

A major focus of many recent Educational Needs Assessment Surveys has been on better facilities planning and design. A Use-Efficiency model which highly simplifies scheduling by assessing actual use of facilities, thus allowing classrooms to be scheduled to best serve the interest of the college community, has widespread implications for better cost-effectiveness. (Keene, 1972).

Sponsored by the Bureau of Higher Education's Division of College Support in cooperation with the Appalachian Developing Institutions Consortium, a survey of high school juniors and seniors in areas served by members of the consortium was conducted. (Rosler, 1972). The goals of this survey were: 1) to discover the kind of image each consortium insitution has with students; and 2) to obtain information on these students' backgrounds and educational plans to assist administrators in establishing productive communication, to aid in recruitment and program planning, and to increase the accuracy of enrollment predictions and estimates of space needs.

Parker (1971) looks at mechanisms that have been used for innovation in many fields, and assesses their relevance to education. He focuses on the innovator and the best ways which he can operate to achieve change.

Two recent educational innovations cited in the literature are known as Learning Activity Packages (LAPs) and

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Student Centered College Curriculum (SCCC). LAPs (Walter, 1972) were identified to be more effective as methods of individualized instruction in a wide variety of subject matters. The students, who helped plan their own learning goals and objectives, retained more as they were able to work at their own pace. Student Centered College Curriculum at Hiram College (Morgan, 1972) showed that with the combination of increased freedom and interdisciplinary studies, the intellectual attitudes and academic achievement of students were higher or equal to those students (control group) who studied traditional subjects with little freedom of choice. Performance contracting as an innovative methodology has been designed to offer a unique opportunity to personalize and humanize education. Morale and attitude toward learning were especially positive in students exposed to this approach. (Bochman, 1973).

With the emerging middle school concept in Atlanta, the city undertook a facilities survey to aid in development of its school system. (McGuffey, 1972). More efficient and effective physical plant decisions resulted, as well as solid data on which to base renovation and expansion-of-facilities decisions.

In higher education, Florida made a survey of the lower west coast to aid in facilities planning in both two year and four year institutions in Collier and Manatee Counties. (Florida State Board of Regents, 1973) Such problems as the lower west coast's distance from a public four year insti-

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tutio... and Edison Community College's extremely large service area were demonstrated. Various proposals for solutions and related budget costs were outlined. A similar survey established the need for a College of Veterinary Medicine to be located in New England. (New England Board of Higher Education, 1973).

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CURRICULUM EVALUATION AND RESOURCE ALLOCATION

Several major assessment studies have focused on curriculum planning, though with diverse methodology and emphases. Arizona's Project SENAP (Arizona State University, 1970) was a wide ranging project designed to determine curriculum needs in the State's K-12 school system, and to develop or modify a needs assessment model which would supply the State with information concerning its educational needs. At Pima Community College (1973) a survey-questionnaire assessment of the needs of the Tucson area was undertaken especially in the Model Cities neighborhoods, in reference to both curriculum and facilities planning. The survey verified several economic and educational deficits as well as lack of awareness of options. Suggestions were made for college mini-programs to meet the demands for training semi-skilled personnel, and also for expanding community service programs.

A feedback method for assessing needs in the public school system was developed at Santa Barbara, California. The two-part process involved teachers gathering information from parents, combined with a tri-partite survey of the students, parents, and teachers designed to determine discrepancies in meeting curriculum needs.

Florida studied the need for developing better curricula for manpower going into the eye-care fields. (Florida

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State Board of Regents, 1974). Priorities for establishing more intensive programs were set and new programs were developed to aid in eliminating the shortage of eye doctors.

An assessment of the quality and efficiency of education took place in Pennsylvania (Xindig, 1974) and Maine (1972). Measurement of collective student performance was the focus of the study in Pennsylvania, while Maine concentrated on cognitive skills and citizenship attitudes of its students.

Most school districts do not employ any computer assisted budget preparation, resource allocation, or planning systems. An example of one school system's use of this method for a computerized approach for annual budget planning is the Charter Oak Unified School District of Covina, California. (Quade, 1966). It is called the S-PLAN (School Organization Budget Planning System), and permits an administrator to test a variety of budget alternatives in a single planning session.

Reisman and Taft (1969) outline an approach to educational resource allocation which utilizes Planned Programming Budgeting Systems (PPBS) and utility/cost analysis. Their methodology consists of defining composite utility functions for learning effectiveness and, then allocating resources in order that the utility function is maximized. By assuming the total or composite as a function of the quality and mix of the various competing alternatives (evaluated with respect to several criteria: Relevance,

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generality, etc.), the model purports to answer such questions as:

1. How much utility is contributed by each of the programs, departments, and/or projects in a given institution assuming the existing mix or resource allocations?

2. How will the utility of a given institution change under a different mix of resources?

3. How does the utility of one institution, at a time and a given resource mix, compare with the utility of another institution of a similar class with similar goals, and objectives?

Other models utilizing PPBS are presently in use in New York State and Washington, D.C. (Cerrito, 1973; Chuang, 1970) This methodology provides administrators with the basis for a rational, effective and efficient resource allocation.

Tuscher (1971) developed a utility-based, interactive allocation model which maximizes total educational program utility within a budgetary constraint. The initial phase of the model derives a single-valued measure of the asymptotic level of course worth (utility) based upon the judgment or preference by educational evaluators based on several criteria. The final phase of the model consists of an allocation algorithm which utilizes the composite program utility scores determined previously, a given minimum (threshold) level of expenditures for each course, and a maximum allocation constraint for each course. This allows optimal course expenditure levels to maximize the total program utility. Kramer (1972) builds on Tuscher's model with an

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interactive computer simulation to assist educational planners to evaluate facility requirements for alternative educational programs. The intent is to optimize space allocation among programs with administrative intervention in the process of data analysis.

A simulation system model has been developed and is operational to aid in resource allocation within the Faculty of Arts and Sciences at the University of Toronto. (Judy and Levine, 1965, 1970). The model simulates university operations over a specified period of time. The model accepts descriptions of the university structure and statements of the levels of activities which the university is expected to perform. The four main divisions of the model are as follows:

1. Enrollment Formulation
2. Resource Loading
3. Space Requirements
4. Budgetary Calculations

The order of processing moves through the above functions sequentially and, generally, output consists of calculations regarding resource requirements of staff, space, materials and money.

The original model has been converted into a more generalized simulator (CAMPUS-V) in order to accommodate a large range of institutions and needs, and the model is now able to be integrated within a university information system.

Similar models refined for individual school district planning have been successfully used in Massachusetts and Kansas. (Lyons, 1974; Conroy, 1974).

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The most recent emphasis on improving decision making is based on uniting sophisticated analysis techniques. (Knezevich, 1973). PPBS is grouped with other approaches applied to resource allocation choices such as game theory, graphic analysis, and linear programming techniques. Since the objectives of public programs are seldom defined in operational, (i.e., quantifiably measurable) terms, program accomplishment or lack thereof - is frequently not considered. The actual process of school budget preparation generally consists of extending last year's budget into the next year, with modifications for such factors as grants, taxes, and salary increases. This method neither produces a careful weighing of educational priorities nor assures maximum yield from the volume of educational resources.

The major form of expansion in educational technology has been in the planning area where educational technology is stressed as one of the central elements in plans for the future of education. Coombs offers an 'ideal' concept of educational planning:

> The ideal concept envisages educational planning, first as embracing in orderly fashion all the levels and forms of educational activity, both formal and informal, within the country, and, second, as being fully integrated with the country's economic and social development plan, so that education may serve most efficiently and effectively the needs of both the nation and the individual. (Coombs, 1965)

Educational planning should focus directly on planning for educational change rather than simple planning to cope

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with educational growth - and this change orientation should operate from the standpoint of inventing, testing, modifying and implementing new learning systems and subsystems. (Coombs, 1968).

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SUMMARY OF LITERATURE RESEARCH

In terms of the basic purposes for evaluating educational programs -- policy determination and curriculum planning -- the results of many present-day practices have been disappointing. Theories rather than hard data have provided much of the basis for changing curricula. Only in exceptional cases can changes in educational programs be traced to reliable research.

Indeed, much of the assessment of educational programs has been based on qualitative rather than quantitative instruments of evaluation. Especially in the case of programs funded by agencies outside the school district, i.e., federal - state grants, evaluation is often a means of placating the funding agency rather than a vital instrument of policy determination and curriculum planning.

The increasing interest among educators in accommodating individual differences appears to be resulting in a strong pressure for schools to become more concerned with serving the individual. Implicit in this, is the assumption that the schools can best serve society by serving the individuals who constitute that society. This places the school in a position markedly different from that which it held a generation ago.

Until the early part of the last decade, textbook publishers had the largest say in curriculum planning. Indeed, text books were considered equivalent to curriculum

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guides. Schools were organized on a subject by subject basis. Concern for the individual student and his unique problems was minimal.

Now, more local input and responsibility for curriculum development and a broadening of the term "curriculum" have been brought about through campus laboratory schools, school surveys and independent organizations. Accountability and responsibility for educational output are becoming the watchwords. However, a paradox exists, for all curriculum planning and innovation require great amounts of capital outlay. As monies are becoming increasingly scarce at local levels, schools must look to Federal and State aid, and oftentimes these restricted funds lead to uniformity and stifle a necessary diversity.

Social forces such as traditions, values, and conflicting peer pressures have always affected the decisions of educational administrators and planners. Psychological factors are becoming the basis for many education decisions, for psychology is one of the main disciplines from which education finds its rationale. Understanding the learner and the learning process itself with feedback from students and built-in evaluation procedures in many disciplines make curriculum building more of a personal process between students and teachers.

Programmed curriculum offers new subject-free approaches to learning experiences. At all levels educators can now begin long-range planning by (1) selecting their goals and

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objectives; (2) evaluating achievement of those objectives; (3) selecting learning experiences according to objectives; and (4) organizing experiences to achieve those objectives.

The current trends suggest that more and more curriculum evaluation is taking place prior to extensive use of the curriculum involved. Systems planning through input-output analysis makes this possible. PPBS which is an aggregate long-range plan for accomplishment of objectives with continual feedback and updating of information enables the curriculum decision-making process to operate more effectively. All educational activities are again related to objectives, and the sophisticated planning technique considers program options, establishes priorities, and lists cost benefits. More and more state systems of higher education and even state-wide secondary subject programs make use of this and other scientific planning techniques.

Modernization of curriculum planning techniques, though, comes slowly. For oftentimes, despite lip service to the institutionalized cliches of teaching for the benefit of the individual, and individualized instruction, educational structuring is governed by a regulating academic propriety, and directed by social pressures -- these making for a prescriptive curricula.

The future, which education continually proposes to shape for the better, should be embodied in a curriculum stressing social goals, intellectual aims and personal needs. The needs and desires of both students and society

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...c be considered in making decisions as to curriculum planning and the determination of institutional goals. Indeed, the ideal curriculum should continually aim to serve each individual student as a suggestive guide rather than a prescriptive directory.

Thus, community needs assessment is an inevitable process that will become an integral part in educational planning - indeed, in all areas of socio-economic planning. The excitement generated by anticipation of long-range benefits even in the innovative stages of a nationally significant pilot study is overwhelming. A finished model for assessing community educational needs will, with progressive refinement, improvement, and use through time, help long-range decision making truly reflect the humanistic concerns of growing communities.

To insure that education is instrumental to further achievement, today's educational institutions must ensure that the diverse segments of the populace served be considered in the planning of curriculum and the making of institutional policies. The complexity of today's student is so evident; most students just cannot make use of regular pre-planned programs. Students are unique individuals and it is up to the institutions to assess properly the status of the populace served. Indeed, it is imperative that research be done on each student's educational and personal needs on a continuous and dynamic basis. Only then may the institutions adequately make decisions and provide the best possible service to society.

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APPENDIX

List of Publications in Tommorrow's Manpower Needs Series

Vol. I	Developing Area Manpower Projections, Bulletin 1606 (1969)
Vol. II	National Trends and Outlook: Industry Employment and Occupational Structure, Bulletin 1606 (1969)
Vol. III	National Trends and Outlook: Occupational Employment, Bulletin 1606 (1969)
Supplement No. 1	Revised Projections of Construction Manpower Requirements, Bulletin 1606 (1970)
Supplement No. 2	New and Revised National Industry Projections to 1975 and Procedures for Adjusting Wage and Salary Employment, Bulletin 1606 (1970)
Vol. IV	Revised 1971. The National Industry-Occupational Matrix and Other Manpower Data, BLS Bulletin 1737 (1972)
Research Report on Manpower Projection Methods, Bulletin 1769 (1973)	
Supplement No. 3	Matching Occupational Classifications to Vocational Education Program Codes (1973)
Supplement No. 4	Estimating Occupational Separations from the Labor Force for States (1974)

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